COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
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Doug Domenech
Secretary of Natural Resources

David K. Paylor
Director

Maria R. Nold
Regional Director

Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Eastman Chemical Company
Facility Name:	Eastman Chemical Resins Incorporated, Franklin, VA
Facility Location:	27123 Shady Brook Trail Courtland, VA 23837-2034
Registration Number:	61433
Permit Number:	TRO-61433

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Sections I through VIII)
State Only Enforceable Requirements (Section IX)

September 6, 2011
Effective Date

September 5, 2016
Expiration Date

_____
Maria R. Nold, Regional Director

_____
Signature Date

Table of Contents, 1 page
Permit Conditions, 20 pages

Table of Contents

I. Facility Information

Permittee
Eastman Chemical Company
P.O. Box 511
Kingsport, TN 37662

Responsible Official
Eric D. Beach
Production Manager/Pamolyn Plant Manager

Facility
Eastman Chemical Resins Incorporated, Franklin, VA
27123 Shady Brook Trail
Courtland, VA 23837-2034

Contact Person
Eric D. Beach
Production Manager/Pamolyn Plant Manager
757-569-2916

County-Plant Identification Number: 51-175-00057

Facility Description: NAICS 325191- Gum and Wood Chemical Manufacturing

The manufacturing process at the facility is the Pamolyn process with a design capacity of 40 million lbs products/year. Crystallization procedure produces saturated fatty acids, oleic acids and linoleic acids from tall oil fatty acids purchased from external suppliers. Additional products are produced by the conjugation procedure. The process is a continuous process that operates 24 hours per day, 365 days per year.

Facility operates a wastewater treatment plant with a biological treatment system to treat wastewater from the manufacturing process and surface runoff. The treated wastewater (0.15 million gallons/day maximum on an annual average) and non-contact cooling water (approximately 7 million gallons/day) are discharged to the neighboring Ashland Hercules Water Technologies' permitted outfall.

Refrigeration for the crystallization is provided by an ammonia based refrigeration system.

Heat for the conjugation step is provided by an electric vaporizer which uses Xceltherm MK1 or equivalent as the heat exchanger fluid.

The facility has a State Operating Permit dated October 18, 2010 with a facility-wide VOC emission limit of 18.8 tons/year. No other criteria pollutants are emitted in significant amounts.

II. Emission Units

Two letters are used to identify each process: PM for Pamolyn process, and WW for Wastewater treatment process. A third letter "E" denotes emission from the process. The next two numbers are consecutive numbers used to indicate a group of units with common function. For example PME01 represents the emission group in the first step (step 01) of the Pamolyn process. Most individual emission units such as process tanks or storage tanks under each group qualify as insignificant activities, hence they are listed under that section (Section VI). There are no pollution control devices.

Equipment to be operated consists of:

Emission Group ID	Stack ID	Emission Group Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
PAMOLYN PROCESS, 1969, 40 million lbs products/year							
PME01	Common headers: P102/P104/P105/ P106/P108 and S110/S111 / S112	Saturated fatty acid crystallization with process tanks and vacuum filter system, 1969	40 million lbs/year	-	-	-	10/18/10 SOP
PME02		Crude oleic crystallization with process tanks and vacuum filter system, 1969	40 million lbs/year	-	-	-	10/18/10 SOP
PME04		Pure oleic crystallization with process tanks and vacuum filter system, 1969	40 million lbs/year	-	-	-	10/18/10 SOP
PME06	-	Conjugation Reactors with heated units (unvented), 1969	9.8 million lbs/year	-	-	-	10/18/10 SOP
PME07	R-201-R WFE	Acidulator and Wiped Film Evaporator, 1969 Acidulator Wiped Film Evaporator	9.8 million lbs/year 40 million lbs/year	-	-	-	10/18/10 SOP
PME09	-	Reactant and product storage tanks with various contents and installation dates.	Tank details are listed under insignificant activities	-	-	-	10/18/10 SOP

Emission Group ID	Stack ID	Emission Group Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
	-	Loading racks: Two (2) truck loading racks, twelve (12) rail loading racks, and one (1) drum filling station.	12,000 gal/hr combined estimate	-	-	-	10/18/10 SOP
Wastewater Treatment Process, 1953-2003, 7.0 million gallons/day (including non-contact cooling water)							
WWE00	-	Wastewater biological treatment system and oil separation unit, 1953-2003	0.15 million gallons/day	-	-	-	10/18/10 SOP

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

III. Pamolyn Process Requirements – (Emission Groups ID# PME01, PME02, PME04, and PME06 through PME09)

A. Limitations

1. **Production** - The production of fatty acids by the Pamolyn process shall not exceed 40 million pounds per year, combined, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 4 of 10/18/2010 SOP)

2. **Pamolyn Process Emission Limits** - Total point and fugitive emissions from the operation of the Pamolyn process shall not exceed the limits specified below:

Volatile Organic Compounds	15.9 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers III.A.1, III.B.1, and V.A.1.
(9 VAC 5-80-110 and Condition 6 of 10/18/2010 SOP)

B. Monitoring and Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

   a. Annual production (lbs/year) of fatty acids from the Pamolyn process, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   b. Annual calculations for VOC and HAP emissions from point and fugitive emissions from the Pamolyn process using calculation methods approved by the Director, Tidewater Regional Office.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

   (9 VAC 5-80-110 and Condition 9 of 10/18/2010 SOP)

C. Testing

1. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

IV. Wastewater Treatment Process Requirements – (Emission Group ID# WWE00)

A. Limitations

1. **Wastewater Throughput** - The wastewater generated at each of the crystallization section (PME01, 02, and 04), the conjugation section (PME-06), and the wiped film evaporator section (PME07) shall not exceed 3,650,000 gallons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 5 of 10/18/2010 SOP)

2. **Wastewater Treatment Process Emission Limits -** Total point and fugitive emissions from the wastewater treatment process shall not exceed the limits specified below:

Volatile Organic Compounds	2.9 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers IV.A.1, IV.B.1, and V.A.1.

(9 VAC 5-80-110 and Condition 7 of 10/18/2010 SOP)

B. Monitoring and Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

   a. Annual flow rate (gallons/year) of process wastewater generated at each of the crystallization section (PME01, 02, and 04), the conjugation section (PME-06), and the wiped film evaporator section (PME07), calculated monthly as the sum of each consecutive 12-month period, using calculation methods approved by the Director, Tidewater Regional Office. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   b. Annual calculations for VOC and HAP emissions from point and fugitive emissions from the Wastewater Treatment process using calculation methods approved by the Director, Tidewater Regional Office.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

   (9 VAC 5-80-110 and Condition 9 of 10/18/2010 SOP)

C. Testing

1. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

V. Facility Wide Conditions

A. Limitations

1. **VOC Work Practice Standards**-
Fugitive Volatile Organic Compound (VOC) emissions from containers, tanks, vats, drums, and transfer piping systems shall be minimized by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing such emissions. Equipment, containers, tanks, vats, drums, and piping systems located at the facility shall be free of cracks, holes, leaks, and other defects that would otherwise result in unnecessary emissions of VOCs to the atmosphere.

   At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.

   Notwithstanding the above paragraphs, drips of tall oil fatty acids from rotating equipment (e.g. crystallizers, filters, pumps, vacuum pumps, and horizontal tank agitators) may be collected via hard or flexible piped systems which have openings at the collection points, or may be collected via containers so long as the containers are routinely inspected and emptied to minimize accumulation.

   Notwithstanding the above paragraphs, drips of tall oil fatty acids from sample points may be collected via containers so long as the container are routinely inspected and emptied to minimize accumulation.

   (9 VAC 5-80-110 and Condition 3 of 10/18/2010 SOP)

2. **Facility-Wide Emission Limits** - Total point and fugitive emissions from all plant operations shall not exceed the limits specified below:

Volatile Organic Compounds	18.8 tons/yr
All hazardous air pollutants	0.6 tons/yr

   These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers III.A.1, III.B.1, IV.A.1, IV.B.1, V.A.1, and V.B.1.
   (9 VAC 5-80-850 and Condition 8 of 10/18/2010 SOP)

3. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
   (9 VAC 5-80-850 and Condition 13 of 10/18/2010 SOP)

B. Monitoring and Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

a. Material Safety Data Sheets (MSDS), Certified Product Data Sheets (CPDS), or other vendor information as approved by DEQ showing VOC content and hazardous air pollutants (HAP) content for each heat transfer fluid or other VOC containing liquids used.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and Condition 9 of 10/18/2010 SOP)

C. Testing

1. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

VI. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
PME01/ P104	Process tank, fatty acid, 1969, 10,000 gal	9 VAC 5-80-720 B	VOC	
PME02/ P105	Process tank, fatty acid, 1969, 10,000 gal	9 VAC 5-80-720 B	VOC	
P106	Process tank, crude oleic, 1969, 5,300 gal	9 VAC 5-80-720 B	VOC	
PME04/ P102	Process tank, fatty acid, 1969, 5,300 gal	9 VAC 5-80-720 B	VOC	
P108	Process tank, fatty acid, 1969, 5,300 gal	9 VAC 5-80-720 B	VOC	
T119	Fatty acid/acetone, 1969, 5,000 gal	9 VAC 5-80-720 B	VOC	
PME07/ R-201-R	Process tank, fatty acid, 1969, 1,000 gal	9 VAC 5-80-720 B	VOC	
T208	Fatty Acid/ $NaSO_4$ solution, 1969, 1,000 gal	9 VAC 5-80-720 B	VOC	
T213	Fatty acid, 1969, 150 gal	9 VAC 5-80-720 B	VOC	
T213-1	Fatty acid, 1969, 1,000 gal	9 VAC 5-80-720 B	VOC	
T69	Fatty acid, 1969, 270 gal	9 VAC 5-80-720 B	VOC	
Cottonseed oil vat	Cotton seed oil , 100 gal	9 VAC 5-80-720 B	VOC	
PME08/ T210	Heat transfer fluid (no HAP), 84 gal	9 VAC 5-80-720 B	VOC	
T214	Heat transfer fluid (containing biphenyl), 470 gal	9 VAC 5-80-720 B	VOC, HAP	

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
PME09/				
P101	Fatty acid, 1969, 15,000 gal	9 VAC 5-80-720 B	VOC	
P115	Fatty acid, 1969, 5,300 gal	9 VAC 5-80-720 B	VOC	
P118	Fatty acid, 1969, 15,220 gal	9 VAC 5-80-720 B	VOC	
P116A	Fatty acid, 1969, 5,300 gal	9 VAC 5-80-720 B	VOC	
P116B	Fatty acid, 1969, 5,300 gal	9 VAC 5-80-720 B	VOC	
P303	Fatty acid, 1969, 4,900 gal	9 VAC 5-80-720 B	VOC	
P641	Fatty acid, 1969, 4,900 gal	9 VAC 5-80-720 B	VOC	
P642	Fatty acid, 1969, 4,900 gal	9 VAC 5-80-720 B	VOC	
T31	Fatty acid, pre 7/23/1984, 48,000 gal	9 VAC 5-80-720 B	VOC	
T32	Fatty acid, pre 7/23/1984, 48,000 gal	9 VAC 5-80-720 B	VOC	
T33	Fatty acid, pre 7/23/1984, 48,000 gal	9 VAC 5-80-720 B	VOC	
T34	Fatty acid, pre 7/23/1984, 48,000 gal	9 VAC 5-80-720 B	VOC	
T35	Fatty acid, pre 7/23/1984, 48,000 gal	9 VAC 5-80-720 B	VOC	
T36	Fatty acid, pre 7/23/1984, 48,000 gal	9 VAC 5-80-720 B	VOC	
T37	Fatty acid, pre 7/23/1984, 9,100 gal	9 VAC 5-80-720 B	VOC	
T38	Fatty acid, pre 7/23/1984, 11,200 gal	9 VAC 5-80-720 B	VOC	
T451	Fatty acid, 2003, 275,000 gal	9 VAC 5-80-720 B	VOC	
T452	Fatty acid, 2003, 110,000 gal	9 VAC 5-80-720 B	VOC	
P39	Fatty acid, 1967, 16,300 gal	9 VAC 5-80-720 B	VOC	
P40	Fatty acid, 1967, 26,300 gal	9 VAC 5-80-720 B	VOC	
P117-1	Fatty acid, 1969, 5,300 gal	9 VAC 5-80-720 B	VOC	
P117-2	Fatty acid, 1969, 5,300 gal	9 VAC 5-80-720 B	VOC	
P202	Fatty acid, 1969, 9,800 gal	9 VAC 5-80-720 B	VOC	
P409	Fatty acid, 1974, 10,000 gal	9 VAC 5-80-720 B	VOC	
P406	Fatty acid, 1974, 24,000 gal	9 VAC 5-80-720 B	VOC	
P206	Fatty acid, 1969, 9,980 gal	9 VAC 5-80-720 B	VOC	
P216	Fatty acid, 1971, 8,880 gal	9 VAC 5-80-720 B	VOC	

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
P205	Fatty acid, 1999, 1,600 gal	9 VAC 5-80-720 B	VOC	
P401	Fatty acid, 1969, 9,800 gal	9 VAC 5-80-720 B	VOC	
P402	Fatty acid, 1969, 49,000 gal	9 VAC 5-80-720 B	VOC	
P403	Fatty acid, 1969, 49,000 gal	9 VAC 5-80-720 B	VOC	
P405	Fatty acid, 1974, 24,000 gal	9 VAC 5-80-720 B	VOC	
P407	Fatty acid, 1974, 24,000 gal	9 VAC 5-80-720 B	VOC	
P408	Fatty acid, 1974, 24,000 gal	9 VAC 5-80-720 B	VOC	
P410	Fatty acid, 1974, 24,000 gal	9 VAC 5-80-720 B	VOC	
P411	Fatty acid, 1974, 24,000 gal	9 VAC 5-80-720 B	VOC	
P412	Fatty acid, 1974, 24,000 gal	9 VAC 5-80-720 B	VOC	
P413	Fatty acid, 1974, 24,000 gal	9 VAC 5-80-720 B	VOC	
P416	Fatty acid, 1963, 9,240 gal	9 VAC 5-80-720 B	VOC	
P417	Fatty acid, 2003, 9,520 gal	9 VAC 5-80-720 B	VOC	
P415	Fatty acid, 1968, 15,800 gal	9 VAC 5-80-720 B	VOC	
P3	Fatty acid, 2003, 50,000 gal	9 VAC 5-80-720 B	VOC	
T610	Fatty Acid/Oil Collection, 12,000 gal	9 VAC 5-80-720 B	VOC	
T204	Fatty Acid/ $NaSO_4$ solution, 1969, replaced 2005, 10,000 gal	9 VAC 5-80-720 B	VOC	
WWE01	Wastewater Treatment Process, car wash pit, 1956, replaced 2011, 45,000 gal	9 VAC 5-80-720 B	VOC	
WWE02/ T602	Wet Well Collection Sump, 1956, 1,950 gal	9 VAC 5-80-720 B	VOC	
WWE04/ T604	Skimmed Oil Tank, 1989 (Tank T610 in PME09 is secondary), 1,000 gal	9 VAC 5-80-720 B	VOC	
WWE05/ S-100	Oil-Water Separator, 1995, 930 gal	9 VAC 5-80-720 B	VOC	
T-603	Wastewater Holding tank, 1989, 2260 gal	9 VAC 5-80-720 B	VOC	
WWE06/ T605	Storm Water Holding Tank, 1994, 620,000 gal	9 VAC 5-80-720 B	VOC	

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
WWE07/ T601	Equalization Tank, 1996, 250,000 gal	9 VAC 5-80-720 B	VOC	
WWE07A/ T606	Mix Tank, 1996, 5,000 gal	9 VAC 5-80-720 B	VOC	
WWE08/ T608	Aeration Basin/Clarifier, 2003, 214,000 gal/36,000 gal	9 VAC 5-80-720 B	VOC	
WWE09/ T607	Sludge Holding Tank, prior to 1980, relocated 1996, 17,000 gal	9 VAC 5-80-720 B	VOC	
T609	Filtrate Sump, 2003, 350 gal	9 VAC 5-80-720 B	VOC	
BP-607-1	Belt Filter Press, 2003	9 VAC 5-80-720 B	VOC	
WWE10/				
"Frac" Tanks	Treated wastewater temporary storage tanks, up to 20,000 gal	9 VAC 5-80-720 B	VOC	
T50	Emergency wastewater storage, 1958, 210,000 gal	9 VAC 5-80-720 B	VOC	
T51	Emergency wastewater storage, 1958, 210,000 gal	9 VAC 5-80-720 B	VOC	
T53	Emergency wastewater storage, 1958, 403,000 gal	9 VAC 5-80-720 B	VOC	
T54	Emergency wastewater storage, 2003, 589,000 gal	9 VAC 5-80-720 B	VOC	
T450	Emergency wastewater storage, 2003, 243,000 gal	9 VAC 5-80-720 B	VOC	
Non-VOC Tanks/				
T200	Caustic soda storage, 1969, 5,000 gal	9 VAC 5-80-720 A	N/A	
T400	Caustic soda storage, 1969, 10,750 gal	9 VAC 5-80-720 A	N/A	
T203	Sulfuric acid storage, 1969, 20,000 gal	9 VAC 5-80-720 A	N/A	
T103	Dry acetone storage, 1969, 2,000 gal	9 VAC 5-80-720 A	N/A	
T404	Dry acetone storage, 1969, 13,500 gal	9 VAC 5-80-720 A	N/A	
T404A	Dry acetone storage, 1973, 24,000 gal	9 VAC 5-80-720 A	N/A	
T302	Dry acetone storage, 1969, 2,250 gal	9 VAC 5-80-720 A	N/A	
Ammonia-based Refrigeration System	Approximately 300 lbs/yr consumption of NH_3	9 VAC 5-80-720B	Ammonia	
Carbon Dioxide-based Refrigeration System	Approximately 20 tons/yr CO_2 loss	9 VAC 5-80-720 A	N/A	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

VII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
9 VAC 5-40-300	Standards for VOCs for General Process Operations.	Facilities located in a VOC control area (9 VAC 5-20-206).
9 VAC 5-40-3410 et seq. (Rule 4-25)	Emission Standards For Volatile Organic Compound Storage and Transfer Operations.	Facilities located in a VOC control area (9 VAC 5-20-206).
40 CFR 60 Subpart D, Da, Db, and Dc	NSPS for Boilers and Electric Generating Units	Fuel combustion sources meeting the definitions of affected units under those standards.
NSPS Subpart K and Ka	NSPS for Storage Vessels for Petroleum Liquids	Petroleum Storage Vessels constructed, reconstructed, or modified during certain date ranges as specified in the standards.
NSPS Subpart Kb	NSPS for Storage Vessels for Volatile Organic Liquid Storage Vessels	Volatile Organic Liquid Storage Vessels constructed, reconstructed, or modified after July 23, 1984.
NSPS Subpart O	NSPS for Sewage Treatment Plants	Incinerators that combust wastes containing Municipal Sewage Sludge.
NSPS Subpart VV and VVa	NSPS for equipment leaks of VOC in the SOCMI	Facilities that produces as intermediates or final products chemicals listed in 40 CFR 60.489
40 CFR 60 Subpart III	NSPS for VOC Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOMCI) Air Oxidation Unit Processes.	SOCMI emission units that meet the definition of "air oxidation process" in 40 CFR 60.611.
40 CFR 60 Subpart NNN	NSPS for VOC Emissions from SOCMI Distillation Operations.	SOCMI distillation processes that was in existence on December 20, 1983, and produces chemicals listed in 40 CFR 60.667.
40 CFR 60 Subpart RRR	NSPS for VOC Emissions from SOCMI Reactor Processes.	SOCMI reactor processes that produce chemicals listed in 40 CFR 60.707.
40 CFR 60 Subpart YYY (proposed)	NSPS for VOC emissions from Wastewater Operation at SOCMI facilities.	Facilities that produce SOCMI chemicals.
40 CFR 60 Subparts IIII and JJJJ	NSPS for Stationary Compression Ignition Internal Combustion Engines and Stationary Spark Ignition Internal Combustion Engines, respectively.	Stationary Internal Combustion Engines
40 CFR 61 Subpart V	National Emission Standards for Equipment Leaks	Equipment in Volatile Hazardous Air Pollutant (VHAP) Services; benzene and vinyl chloride are VHAP by definition in the Subpart.

Citation	Title of Citation	Description of Applicability
40 CFR 61 Subpart Y	National Emission Standards for Benzene Emissions from Benzene Storage Vessels	Storage vessels that store benzene.
40 CFR 61 Subpart BB	National Emission Standards for Benzene Emissions from Benzene Transfer Operations	Loading racks that handle benzene.
40 CFR 63 Subparts F, G, H, and I	Hazardous Organic NESHAP (HON) MACT.	SOCMI major HAP sources that meet the criteria of 40 CFR 63.100 (b)(1) to (3).
40 CFR 63 Subpart Q	Cooling Tower MACT.	Facilities that had previously used chromium-based water treatment chemicals in the cooling towers.
40 CFR 63 Subpart T	National Emission Standards for Halogenated Solvent Cleaning	Cleaning machines using certain halogenated solvents.
40 CFR 63 Subpart DD	NESHAP for Off-Site Waste and Recovery Operations	Major HAP sources that receives wastes from off-site
40 CFR 63 Subpart EEE	NESHAP for Hazardous Waste Combustors	Hazardous waste combustors at any major or area HAP sources.
40 CFR 63 Subpart EEEE	NESHAP for Organic Liquids Distribution (Non-Gasoline)	HAP emissions from Organic Liquid Distribution Operation (non-gasoline) at major HAP sources.
40 CFR 63 Subpart FFFF	NESHAP for Miscellaneous Organic Chemical Manufacturing	Chemical Manufacturing Process Units at major HAP sources that process, use, or produce HAPs.
40 CFR 63 Subpart ZZZZ	National Emission Standards For Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)	RICE at major HAP sources.
40 CFR 63 Subpart DDDDD	NESHAP for Industrial, Commercial and Institutional Boilers and Process Heaters	Industrial, Commercial and Institutional Boilers and Process Heaters at major HAP sources.
40 CFR 63 Subpart GGGGG	National Emission Standards For Hazardous Air Pollutants: Site Remediation	HAP emissions from remediation activities at major HAP sources.
40 CFR 64	CAM rule	Units with emission control device and potential uncontrolled emissions above certain thresholds.
40 CFR 68	Chemical Accident Prevention Provisions	Facilities that store or use chemicals in quantities greater than the thresholds defined in the rule.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

VIII. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D, and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

   c. The company or entity that performed the analyses.

   d. The analytical techniques or methods used.

   e. The results of such analyses.

f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

   a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

   b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:

      (i) Exceedance of emissions limitations or operational restrictions;

      (ii) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,

      (iii) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

   c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

   (9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. The identification of each term or condition of the permit that is the basis of the certification.

3. The compliance status.

4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

6. Such other facts as the permit may require to determine the compliance status of the source.

7. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

   R3_APD_Permits@epa.gov

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Tidewater Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition VIII.C.3 of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Tidewater Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Tidewater Regional Office.

(9 VAC 5-20-180 C)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.

(9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.

(9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.

(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E and 9 VAC 5-40-20 E)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

   d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-190 C and 9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A-F)

Y. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).

(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

Z. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.

(40 CFR Part 68)

AA. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

BB. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

IX. State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

(9 VAC 5-80-110 N and 9 VAC 5-80-300)

1. **Emission Standards for Odor** - The facility is subject to the Emission Standards for Odor in 9 VAC 5-40-130 et seq. (Rule 4-2), and the Standards of Performance for Odorous Emissions in 9 VAC 5-50-130 et seq. (Rule 5-2).
   (9 VAC 5-80-110 N, 9 VAC 5-80-300, and Condition 18 of 10/18/2010 SOP)

2. **Toxic Pollutant Emission Standards** - The facility is subject to the Emission Standards for Toxic Pollutants from Existing Sources in 9 VAC 5-60-200 et seq. (Rule 6-4) and New and Modified Sources in 9 VAC 5-60-300 et seq. (Rule 6-5). "Toxic Pollutant" means any hazardous air pollutant (HAP) listed in section 112(b) of the federal Clean Air Act, as revised by 40 CFR 63.60, or any other air pollutant that the board determines to represent a significant risk to public health, as defined in 9 VAC 5-60-310.
   (9 VAC 5-80-110 N, 9 VAC 5-80-300, and Condition 19 of 10/18/2010 SOP)